

THE OHIO STATE UNIVERSITY

COLUMBUS AND SOUTHERN OHIO ELECTRIC COMPANY'S
ORGANIZATIONAL STRUCTURE, POLICY AND POLICY FORMULATION METHODS
AND THEIR IMPACT ON THE EFFECTIVENESS
OF RELATED ENVIRONMENTAL LEGISLATION

An Honors Program Paper
Submitted To
The School of Natural Resources Honors Committee In
Candidacy for the Degree of
Bachelor of Science With Honors

Natural Resources Development Program

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May 6, 1980

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INTRODUCTION

As stated in Part I of this study, the impacts of environmental policy on the industries and agencies it is designed to regulate represent the quantifiable indicator of present policy weaknesses and future policy needs. In order to isolate this indicator questions were developed in Part I concerning each of the three study topics 1). Organizational Structure, 2). Incentives and Deterrents of Compliance to Environmental Policies and 3). Methods Used to Influence and Monitor the Formulation of Environmental Policy.

After careful analysis the questions appearing in the section "Summary of Areas of Future Investigation" were modified in preparation for a phone interview with a representative of C&SOE. Additional interviews with other professionals whose work is directly in contact with the activities of C&SOE were designed to investigate the specific topic (of the three listed above) with which they are most familiar.

The following sections include C&SOE's corporate response to questions posed in all three topic areas as well as an analysis of each topic with additional input given by representatives of four professional organizations. These include:

- 1). Mr. Jack Frost of the Environmental Board of Review is responsible for the legal review of any disputes between C&SOE and public or private interests concerning actions of environmental significance.
- 2). Mr. Howard Johnson, Chief of the Environmental Evaluation Center Division of Air Quality Modeling and Planning at Ohio EPA.

The responsibilities of EPA (as discussed in Part I) include "watch-dog" power over allocation of permits and compliance to regulations in areas of air, water and solid waste pollution.

3). Mr. William Lawhon, spokesman for Battelle Memorial Institute. Battelle Memorial Institute has acted as environmental consultants and environmental field data collectors for C&SOE.

4). Senator Kenneth R. Cox, State Senator 28th District (Democrat). Senator Cox is Chairman of the Public Utilities Committee in the Ohio Senate.

The questions posed in Part I and discussed in the following Part 2 are designed to investigate how effectively environmental policy is regulating operations at Columbus and Southern Ohio Electric. Through this study it is possible to recognize some influences of compliance to environmental regulation not identified in the previous analysis.

Since the following rely on the policy statements of only four professional organizations and is supported by limited case study analysis, this can only be viewed as a beginning in the identification of the impacts of environmental policy on the activities of C&SOE as well as the identification of other influences affecting the process of environmental regulation. However, the four organizations are by far the most closely associated and well informed professional groups working in Ohio with C&SOE on issues of environmental significance. The points emphasized by these four spokesman can be considered indicative of important observations shared by other members in their field. These observations represent a beginning for future studies of the activities

of private organizations in relation to Federal and State environmental policy.

CHAPTER 1

COMPANY POLICY STATEMENTS OF COLUMBUS AND SOUTHERN OHIO ELECTRIC

Questionnaire and Response

The following questionnaire includes an introductory paragraph concerning each of the three topics emphasized. This questionnaire was presented in the following form to Mr. Jack Apel, Vice-President of the Environmental Division of C&SOE on May 19, 1980. His informal responses have been organized and edited. These appear after each question and are sub-headed "Points Emphasized in Response". In many cases Mr. Apel could not limit his response to the "yes", "no", "can't say" alternatives and rather, chose to make an informal policy statement for his company concerning each question.

Questionnaire

THE ORGANIZATIONAL STRUCTURE AND COMPANY POLICY OF C&SOE AND THEIR POTENTIAL INFLUENCE ON THE IMPACT OF ENVIRONMENTAL POLICY

An understanding of industry operational or administrative sub-units can suggest both company priorities and levels of company involvement in any policy area. The organizational structure of C&SOE is based on a branching corporate organization. The corporate level group does have the power to promote or discourage utility practices which interfere with the development of adequate environmental planning practices.

The specific Environmental Group within the corporate structure is responsible for the preparation and acquisition of permits, communication of legal responsibilities to each company sub-unit, and is involved as

a consulting group for other company units.

These factors of organizational structure can have an impact on the flexibility of company policy, company effort and integrity in choosing alternatives, the supply of information to regulatory agencies, and the effectiveness of interdisciplinary approaches.

1A). Does C&SOE have adequate company structure flexibility to help them prepare for the demands of changing environmental policy?

YES

NO

CAN'T SAY

"Points Emphasized in Response- 1A"

YES Senior management is organized with the responsibility of being knowledgeable of the rules and requirements which affect every company unit. An unfortunate result of this is the fact that company personnel are responsible for the actions of company units over which they have no continuous power. For example, I am responsible for the actions of the operations group even though I am not always aware of their planning decisions nor am I involved in actual operation decisions. I must assume responsibility for every action related to environmental regulations though I cannot always be a member of the decision-making group nor am I involved in the implementation of their decisions.

2A). Is there adequate assurance that the supply of information from C&SOE to regulatory agencies is complete and accurate?

YES

NO

CAN'T SAY

"Points Emphasized in Response-2A"

YES Our recently compiled "Quality Assurance" document gives company policy on all issues.

3A). Are inter-disciplinary approaches used effectively in C&SOE's decision-making processes?

YES

NO

CAN'T SAY

"Points Emphasized in Response-3A"

"Not that simple" There are always conflicts between disciplines and communication between departments is often a difficult issue. Engineers know their trade as do environmentalists, when their paths cross it is difficult to concede issues. But C&SOE is doing as well as can be expected under these circumstances.

INCENTIVES AND DETERRENTS OF COMPLIANCE TO ENVIRONMENTAL POLICIES

Stated company policy and the actual values and activities of a company can vary widely. These differences are often centered around economic priorities and can be directly responsible for compliance to or negligence of environmental legislation. In Inter-departmental Correspondence (Dec. 7, 1977) concerning "Corporate Responsibility and Environmental Compliance" C&SOE pledges itself to active compliance with existing environmental legislation regardless of economic influences. C&SOE also states in the same document that individual employees can be held responsible for the validity of any information submitted to regulatory agencies. Company policy also encourages the use of inter-departmental audit groups to check the actions of other company groups.

The authority of EPA to enforce legislation in the areas of air, water, and solid waste pollution is bounded by a series of legislative acts including The Clean Air Act Amendments of 1977, The Federal Water Pollution Control Act and The Resource Conservation and Recovery Act of 1976. The compliance to these regulations exhibited by C&SOE is being viewed during this study as an indication of the company's overall actual (rather than stated) environmental policy.

1B). Is stated company policy of compliance to environmental legislation being followed regardless of economic deterrents?

YES

NO

CAN'T SAY

"Points Emphasized in Response-1B".

YES Some policies are impossible to comply with regardless of the economic influences. Some precipitators purchased by C&SOE are not functioning properly. C&SOE is paying for the technology available to comply but in some cases this just isn't enough.

2B). Does C&SOE have adequate internal incentives and deterrents to insure the complete and accurate investigation of project alternatives?

YES

NO

CAN'T SAY

"Points Emphasized in Response-2B"

YES Investigation of all possible alternatives is a requirement of existing regulations and is to the advantage of C&SOE.

3B). Are interdepartmental audit groups functioning adequately within C&SOE?

YES

NO

CAN'T SAY

"Points Emphasized in Response-3B"

YES It is functioning as best as can be expected but it must be developed further.

4B). Are air pollution standards set by legislation being observed and complied with by C&SOE?

YES

NO

CAN'T SAY

"Points Emphasized in Response-4B"

YES Basic Standards for Ambient Air are being met. We are legal on all limits. The problem is that in many cases emission limits can not be established. Air moves and it is very difficult to establish limits and even harder to meet them.

5B). Does C&SOE adequately identify existing pollutants in chosen waste disposal streams in preparation for the National Pollution Discharge Elimination Permit issued by EPA?

YES

NO

CAN'T SAY

"Points Emphasized in Response-5B"

YES Most laboratory abilities are better or equal at C&SOE than at EPA. A problem which interferes with struggle to provide safe effluent standards is the difficulty of identifying pollutants. At what level do normally harmless effluents become pollutants? We just don't always know.

6B). Is adequate planning taking place by C&SOE to prepare for the regulations imposed by the Resource Conservation and Recovery Act of 1976?

YES

NO

CAN'T SAY

"Points Emphasized in Response-6B"

YES Most of our plans are in place. The list of regulations and guidelines for this act come to over 2000 pages of documents!

METHODS USED TO INFLUENCE AND MONITOR THE FORMULATION OF ENVIRONMENTAL POLICY

C&SOE has the power to form or promote the formulation of interest groups with the lobbying strength to influence the formation of legislation concerning related environmental issues. They are involved with the national Edison Electric Institute and The Association of Electric Companies. On the state level C&SOE works with the Ohio Electric Utility Institute and locally provides its own lobby members from the company department of Government Affairs.

1C). Do lobby groups supported by C&SOE measurably influence environmental legislation?

YES

NO

CAN'T SAY

Response-1C

YES

2C). Does the power of organized groups such as those working for C&SOE overwhelm the interests of non-profit environmental interest groups?

YES

NO

CAN'T SAY

Response-2C

NO

3C). Are the legislative goals of C&SOE coordinated with the growing public concern for environmental safety?

YES

NO

CAN'T SAY

"Points Emphasized in Response-3C"

YES But, people must realize the need for a balance between economics and environmental issues. In many cases interest groups want environmental policies which they are not willing to pay for. In one case C&SOE was ordered to obtain the technology for a particular air standard but were not permitted to pass operating costs on to the public. In this one instance C&SOE lost 9 million dollars.

Discussion of Responses

The responses of C&SOE spokesman Jack Apel enforce stated company policy quoted from the C&SOE Missions and functions statement. He did, however, admit to areas of weakness in the actual functions of C&SOE company sub-units.

Mr. Apel's comment on the company's organizational structure (1A) presents the conflict of inter-disciplinary input vs. specialization in company sub-units. In an organization such as C&SOE, which has separate divisions for engineering, operations and planning, conflicts can develop between specialists in each field and those responsible for the decision-making process. In the case of Jack Apel's Environmental Group (for example), the Environmental Group must alert the Operations Group to any regulations which apply to their activities. The Environmental Group can not, however, make decisions concerning how operations are implemented nor, because of their many responsibilities, can they be a part of the day to day functions of the Operations Group. The Environmental Group must assume responsibility for any actions of the Operations Group despite these weaknesses. This is a functional problem inherent in the organizational structure of the company. It can impair the responsiveness of C&SOE to environmental policy.

Alternatives could include:

- 1). Assigning an environmental specialist to each functioning group could provide a constant member as well as watchdog for each company unit. However, this organization could cause a decrease in the

overall long range planning of a company. Activities may not be as coordinated, one member must know much more about environmental issues, and combined efforts within the company would be complicated.

2). Retaining present organization but assigning Environmental Group members to specific company units could retain coordinated long range planning, but as a matter of numbers of personnel and the limited knowledge of each group member it would be very difficult for a single member to offer the quality of input that is provided by a group effort.

Mr. Apel's response to questions concerning incentives and deterrents to compliance stated company policy but hinted that conflicts such as those already discussed in this section cause weaknesses in the effectiveness of inter-disciplinary audit groups.

Responses to questions concerning the impact of C&SOE lobby groups on the formulation of environmental legislation left room for further investigation. How can public interest groups compete with the power of C&SOE's highly organized lobby groups? If C&SOE groups do measurably influence environmental legislation how can their actions reflect the concerns of the public?

Mr. Apel also added that the public must accept financial responsibilities for their environmental policy demands. With economics an issue here, can C&SOE afford to support public concern? Mr. Apel stated that at present the legislative goals of C&SOE are coordinated with growing public concern for environmental safety. If coordination does exist, can this continue?

Discussion of these topics, related case studies, and professional opinions could offer further insight and alternatives.

CHAPTER 2

FURTHER ANALYSIS OF THREE TOPICS

Further Analysis of Organizational Structure and Its Impact on Environmental Policy

The functional ability of one particular organizational structure can only be analyzed qualitatively. The success of a structure depends on many other factors. Mr. Jack Apel emphasized this point when he mentioned the conflict between specialists and environmental group members.

The effect that organizational structure has on the effectiveness of environmental policy is a factor of this conflict. If an organizational structure could be developed which would limit conflict and increase communication and watchdog powers, environmental regulations could be more completely complied with.

Mr. Jack Frost of the Environmental Board of Review (interviewed May 20, 1980) gave several factors he believed were necessary for environmental policy and organizational structure of a private company to be coordinated.

He encouraged the establishment of a "strong professional staff related to environmental impact or resource use". This policy is followed at C&SOE. Continual training takes place for members in C&SOE's Environmental Group. Both policy and actual functions of C&SOE encourage this strong professional staff.

The factor of personal conflicts of work quality and integrity within a company can only be avoided by selective hiring procedures and the encouragement of quality work. C&SOE has continued review processes for the surveillance of employee performance.

Mr. Jack Frost (Environmental Board of Review) stated that in any company there will always be those performing well and those giving answers which were expected of them. As C&SOE employees act as internal watchdogs this can be reflected as an organizational problem.

But human diversity cannot be corrected by organizational structure alone. Companies guard against human fallibility by the use of corporate structure. Each company group answers to supervisory groups. Here redundancy provides certain assurances against failure. Mr. Frost emphasized the value of governmental supervision as an additional check of company actions.

The effectiveness of environmental policy can be decreased by a lack of watchdog groups both inside a company and as a part of a federal or state agency. Levels of effectiveness are also related to the unpredictable fallibility of the human factor. In reviewing the three questions raised in Part I this is understood:

1A). Does C&SOE have adequate company structure flexibility to help them prepare for the demands of changing environmental policy?

Company flexibility is most greatly related to the human element as well as stated company policy. In the case of C&SOE company structure and stated policy encourage company flexibility. The question of human integrity can only be reasoned by the fact that only through the

hiring of competent and honest employees can C&SOE meet their responsibilities for compliance to environmental regulation and in so doing stay in business. In the opinion of professionals questioned, C&SOE functions in this manner.

2A). Is there adequate assurance that the supply of information from C&SOE to regulatory agencies is complete and accurate?

The watchdog nature of corporate organizational structure encourages the supply of complete and accurate information. Mr. Apel (C&SOE) presents the extensive "Environmental Reference Manual" as representative of his company's complete quality assurance program. The manual consists of extensive outlines which are used as planning programs for the company. These outlines contain complete company policy statements on the issue of compliance to environmental legislation. Mr. Frost (Environmental Board of Review) believes in the power of governmental agencies to add an additional check to company actions. However, Mr. Apel explains that weaknesses in the ability of Environmental Group members to be aware of all company activities can be responsible for some level of error.

3A). Are inter-disciplinary approaches used effectively in C&SOE's decision-making processes?

C&SOE's use of inter-disciplinary approaches is marred by what Mr. Apel calls "conflicts" between disciplines. Extensive study of case experiences could lead to a better ^{qu}antitative analysis of this problem. In studying case analysis it would be important to watch for situations where any company group had not contributed their expertise to a planning process.

Further Analysis of the Incentives and Deterrents
to Compliance to Environmental Policies

Incentives and deterrents of compliance with environmental regulations were discussed in Part I as a primarily economic question. After further study and interviews with professionals, factors which could be identified as incentives and deterrents are found to exist outside the corporate and legal structure of the company. Incentives and deterrents exist for companies and agencies which work with C&SOE. Their company policies have a great impact on the actions of C&SOE.

The actions of a company cannot be viewed as independent of the actions of other organizations it works with. Though company policy and the policy statement of Mr. Jack Apel emphasize C&SOE's efforts to comply, other factors contribute to their decision. Consulting firms such as Batelle Memorial Institute have internal policies to insure that their consultants always provide accurate data. In an interview on May 22, 1980 spokesman Willaim Lawhon stated; in order for a consulting firm to stay in business they must have the two qualities of integrity and consistency. The consulting firm will not be obliged to provide C&SOE with the answers they would like to hear. Consulting firms have their own policies which, in order to stay in business, must include integrity of data. As Mr. Lawhon stated, any consulting firm member who is found responsible for falsification of data "will go to jail". It is not the choice to C&SOE to "buy" data from a consulting ~~from a consulting~~ firm. They are bound by the policies of the consulting firm as well as their own incentives and deterrents to compliance.

Another factor which insures compliance despite C&SOE's company policies is the power of government agencies. Mr. Howard Johnson (Environmental Protection Agency) states that communication between C&SOE and EPA is good. He emphasized the fact that in general almost all companies dealt with are honest and that in the case of many emission tests the structure of EPA and the requirements of environmental regulations provide another multiple "watchdog" process. As Mr. Frost (Environmental Board of Review) states "it is as much to the advantages of industry as agency to have good monitoring techniques so that they can back up what they are doing".

Mr. Johnson, Mr. Frost, and Mr. Lawhon see major weaknesses not in the activities of C&SOE and related organizations but in the technological weakness in monitoring and abating of pollutants.

1B). Is stated company policy of compliance to environmental legislation being followed regardless of economic deterrents?

All professionals questioned agree that the "watchdog" structure outside C&SOE (in both related public and private institutions) is insuring C&SOE's compliance regardless of economic deterrents. Mr. Apel (C&SOE) states that all efforts are being made to comply. In many cases technology appears to be the greatest problem causing lack of compliance to regulations. Mr. Frost (Environmental Board of Review) emphasized that because the private sector is geared to economic analysis they should be encouraged to provide insight into the potential for success of regulations being developed.

2B). Does C&SOE have adequate internal incentives and deterrents to insure the complete and accurate investigation of project alternatives?

Mr. Jack Apel (C&SOE) and C&SOE's "Environmental Reference Manual emphasize the efforts toward compliance of C&SOE. But as the preceeding discussion concluded, the internal actions of C&SOE cannot be viewed as independent from the activities of the other institutions it works with.

3B). Are interdepartmental audit groups functioning adequately within C&SOE?

Only Mr. Apel (C&SOE) was able to give his position on this issue. As company spokesman he felt that personal situations caused some weaknesses in the success of interdepartmental audit groups. These weaknesses are also affected by the organizational structure weaknesses discussed in response 2A.

4B). Are air pollution standards set by legislation being observed and complied with by C&SOE?

EPA spokesman Howard Johnson believes that combined "watchdog" efforts of governmental agencies and C&SOE insure that ambient air quality standards are being met. Exceptions are a result of inadequate technology.

5B). Does C&SOE adequately identify existing pollutants in chosen waste disposal streams in preparation for the National Pollution Discharge Elimination Permit issued by EPA?

As stated by Mr. Apel (C&SOE) C&SOE has the facilities to provide complete data. Response discussion 2A also applies to this question.

6B). Is adequate planning taking place by C&SOE to prepare for the regulations imposed by the Resource Conservation and Recovery Act

of 1976?

Only Mr. Apel (C&SOE) was able to give his position on this issue. He explained that extensive work was being done in preparation for RCRA. Further study should include an investigation of the preparatory efforts being made.

Further Analysis of the Methods Used
to Influence and Monitor the Formulation of
Environmental Policy

The lobby organizations of C&SOE were described in Part I of this study. In this previous study questions were raised concerning the power of these highly organized lobby groups. Mr. Apel (C&SOE) stated that though company lobby groups do measurably affect legislation they do not overwhelm the interests of non-profit environmental interest groups. How can this be? Is it possible (or likely) that interest groups without the expertise or financial support of C&SOE lobby groups can compete in their attempts to influence legislation?

Mr. Frost (Environmental Board of Review) stated that the general balance of the U.S. legislative process protects the private interest groups. He believes that the media provides a counterbalance against the organized lobby groups of C&SOE. He was optimistic that the national policy of freedom of speech and the careful surveillance of environmental issues by the media provides power to private interest groups. Senator Cox (interviewed May 22, 1980) agrees. Senator Cox's remarks were very limited. He chose to answer the three questions presented to Mr. Apel in topic C (1C,2C,3C). He believes that C&SOE does not "measurably"

influence environmental legislation nor did he feel that these lobby efforts "overwhelm" private interest groups.

Both professionals cited the power of the press as the moderating element in the development of environmental legislation.

1C). Do lobby groups supported by C&SOE measurably influence environmental legislation?

Mr. Apel (C&SOE) believes that company lobby groups do affect legislation. Senator Cox disagrees.

2C). Does the power of organized groups such as those working for C&SOE overwhelm the interests of non-profit environmental interest groups?

Neither Senator Cox, Mr. Frost nor Mr. Apel believes that private interest groups were unfairly disadvantaged by C&SOE's lobby methods. Senator Cox and Mr. Frost cited the power of the media as the counterbalance here.

3C). Are the legislative goals of C&SOE coordinated with the growing public concern for environmental safety?

Mr. Apel stated that C&SOE does share the same concerns as the public. Senator Cox's reply to the question was "not necessarily". He refused further comment. Only through a series of extensive case studies could this question be addressed.

CHAPTER 3

CONCLUSIONS AND SUGGESTIONS FOR FUTURE STUDY OF THE CHARACTERISTICS OF PRIVATE INDUSTRY AND THEIR IMPACT ON THE EFFECTIVENESS OF ENVIRONMENTAL POLICY

In order to recognize weaknesses in existing environmental policy it is necessary to look at the impact of this policy on the activities of the private institutions it is designed to regulate. In this study an assessment of the impact was viewed as an indication of the effectiveness of existing policy. In evaluating this impact three major areas of concern were established: organizational structure, policy and policy formulation methods.

Through this study it was possible to better understand the complex factors which effect the way in which environmental policy becomes company action. In the case of Columbus and Southern Ohio Electric, a diversified utility company, it is possible to establish that the "impact" indicator cannot be viewed as independent from the impact and actions of related organizations. In this study the policies of regulatory agencies as well as private consulting firms can be seen to affect the activities of C&SOE in such a way that they enforce the goals of existing environmental policy. For this reason ~~any~~ future study of the effectiveness of environmental policy must view the wider picture which includes a private company being regulated and any related public and private organizations.

Further study will provide more examples of C&SOE's interaction with related organizations. Extensive case studies would be necessary in

order to quantify the impact of environmental policy on the actions of C&SOE. As a result of this study the importance to C&SOE of policies in related organizations has been established. Within the present system of environmental regulation, C&SOE really does not have the freedom to avoid compliance with environmental legislation. C&SOE's power to alter legislation is limited by the moderating counterbalance of power provided by the media. These two conclusions provide encouraging evidence that existing environmental policy is functioning as planned within the private sector.

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